

Variables Affecting the Retention Intentions of Students in Higher Education Institutions: A Comparison Between International and Domestic Students

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ABSTRACT

The purpose of this study was to investigate the differences between domestic and international students with regards to the variables affecting students' retention intentions. Altogether, 15 variables related to retention intentions were examined and significant differences were found in six of these variables. Variables related to personal issues (e.g., medical or family difficulties) were of equal importance to both groups, while the importance of institution and performance-centric variables differed between the groups. Social integration, ineffective study skills, difficulty adjusting to college life, poor extracurricular activities, and poor housing arrangements were perceived to be significantly more important by international students, while poor quality of instruction was perceived to be significantly more important by domestic students. Thus, international and domestic students require different retention strategies on the part of the institution.

Keywords: higher education, international students, retention

INTRODUCTION

The higher education environment has changed dramatically during last few decades. For example, enrollment in Canadian universities has more than doubled from 1980 to 2010 (Association of Universities and Colleges of Canada, 2010) and again almost doubled from 2008 to 2015 (Canadian Bureau for International Education, 2016). During the 2014–2015 academic year, there were approximately 1.7 million students in Canadian universities (Universities Canada, 2016) and out of these, about 353,000 of them were of international origin (Canadian Bureau for International Education, 2016).

The issue of low student retention rates in academic institutions has been under investigation in numerous academic studies (e.g., Thomas, 2002; Tinto, 1975) from many different points of view (Fischer, 2014; Lau, 2003). This research aims to examine the reasons behind students' retention intentions, paying particular attention to the differences between domestic and international students. More specifically, the purpose of this article is to provide an in-depth and comprehensive discussion on the variables affecting retention intentions of students by conducting an extensive literature review and additional primary research. A statistical comparison between international and domestic students in this respect will also be performed. The study's objectives are first, to identify the variables affecting student retention; second, to identify the relative importance of these variables for domestic and international students; and third, to identify the significant differences in the importance of the variables affecting retention intentions (if any) between domestic and international students.

Relying on the push-and-pull moorings (PPM; Bansal, Taylor, & St James, 2005) and the planned behavior theories (Ajzen, 1991) on consumer-switching behavior theory, this study will begin with a literature review that provides a series of definitions and a theoretical background followed by a detailed description of the key variables affecting retention intentions. On the basis of the literature review, a series of hypotheses have been generated.

LITERATURE REVIEW

Background and Definitions

Institutions are striving to maintain or increase the number of students enrolled by improving their program quality in order to satisfy the needs of customers. Previous research has indicated that "Student commitment serves as a valuable planning tool because it predicts subsequent student-persistence behavior" (Strauss & Volkwein, 2004). These student-persistence behaviors help to strengthen the financial standing and reputation of the academic institution. Although student persistence and retention are closely related, they are not the same. Seidman (2005) defined them as follows: "Student persistence refers to the desire and action of a student to remain in college until graduation while student retention refers to the ability of an institution to retain a student from admission to the university through graduation." The phenomenon is the same; the difference is the point of view, as

student persistence is a student-centric construct and student retention is an institutional construct.

Although satisfying the needs of customers is not a new marketing concept for institutions, customer orientation has been underemphasized in higher education institutions compared with for-profit and even some nonprofit organizations (Morris et al., 2007; Vázquez et al., 2002). Colleges and universities should focus on a more customer-oriented delivery of their services in order to achieve their set goals and objectives (Kotler & Fox, 1985).

At this stage, it is important to define students' retention intentions. The first word "retention" can be described as a persistence rate, meaning that it is different than the graduation rate (Wild & Ebbers, 2002; Wyman, 1997). Graduation rate only measures the end result, while the retention rate measures the "stickiness" of the education process (Crawford, 1999). The concept of retention is an academic institution's equivalent of the marketing concept of loyalty. Oliver (1999) claimed that loyalty can transpire at four different levels: cognitive, affective, conative (behavioral intention), and action (actual behavior). All these intentions can influence academic ability and can be predictors of student retention (Gerdes & Mallinckrodt, 1994). However, one could claim that retention intention is a concept that is most related to conative loyalty—that is, behavioral intentions.

The Impact of Retention

Customer relationship management is a term used to define the relationship of marketing programs focused on retaining customers. Students are the customers of institutions and so all effort should be made to retain them. Per Ackerman and Schibrowsky (2007),

This will be beneficial to the success of a university as this will lead to a higher number of alumni who could be converted into supporters that are both loyal and willing to make a financial commitment through fund raising.

Reichheld (1996) saw the economics of retention as differentiating an organization from competition. Furthermore, prior research claims that universities and businesses need to emphasize extending the duration of the relationship with the end users (Anderson & Sullivan, 1993; Bolton, 1998). Specifically, small increases in retention rates can have dramatic effects on the finances of an academic institution because the cost of retaining an existing customer is much less than the cost of acquiring a new customer (Blattberg & Deighton, 1996; Crede & Borrego, 2014; Griffin, 2002). Universities and colleges rely on revenue to be able to run their institutions. Hence, their return on investment should be of great concern. For example, in a study conducted on 40 randomly selected universities, the different universities and colleges showed that an average cost of \$5,460 was incurred in enrolling a new student (Raisman, 2008).

The sustainability of any economy largely depends on how well we succeed at delivering education. Therefore, the importance of student retention in universities cannot be overemphasized. Building human capital to drive innovation is critical in sustaining the global standing of universities in any country. Noncompletion has

financial implications for students (and their families) who incurred debt or spent their savings on an education but did not receive a degree and for a society that loses potential knowledge and skills (Crosling & Thomas, 2009). For an academic institution, there are financial and reputational implications as well since low student retention and high student attrition can be damaging to the reputation (Yorke & Longden, 2004).

Exploring the direct relationship between academic success and retention rate reveals that as academic institutions continuously improve their academic excellence, retention rates increase significantly (barring other factors; Ryann & Glenn, 2002). This has a positive impact on the overall level of student satisfaction and future admission prospects, and has resulted in an increased search for programs that will improve student learning. However, limited resources for program development initiatives could prohibit the effort for academic excellence (Ryan & Glenn, 2002).

Student Retention and International Versus Domestic Students

According to Albert (2010), the variables related to retention have been changing because of environmental factors and generational differences. Educational institutions must satisfy the needs of students, faculty, staff, alumni, donors, and the community as well as other stakeholders. Stakeholders determine the existence and growth of an academic institution. Consequently, a reduction in the number of students without an increase in enrollment and entry of students will have an adverse effect on the stakeholders of the institution. Thus, the need to manage the college retention process from student entrance to graduation is increasingly important (Crawford, 1999; Seymour, 1993).

Extant research has found that the issues related to student retention in higher education institutions are especially vital for racial and ethnic minorities (Lang, 2001). As discussed previously, the number of international students has been growing, which increases the importance of integration, language, and cultural understanding (Albert, 2010; Hendrickson et al., 2011). For example, domestic students adapt relatively easily to the college environment because they are used to it, but international students may face difficulties as they may not understand the college environment well enough and may first concentrate on learning the culture and language of the new surroundings. Consequently, dissatisfaction may emerge, leading to difficulties in adjustment to the new culture and ultimate withdrawal from an institution.

THEORETICAL BACKGROUND

As student retention was defined as to the ability of an *institution* to retain a student from admission through graduation, a reference can be made to the PPM theory, which explains the reasons why service customers (students) may want to switch their *service provider* (the academic institution; Bansal et al., 2005). Push factors are related to poor value delivery by the existing service provider (Sirdeshmukh et al., 2002), such as service failure, unmet or disconfirmed expectations, poor complaint handling, or high perceived prices (Crosby & Stephens, 1987; Dabholkar & Walls,

1999; Rust & Zahorik, 1993). Pull factors in switching behavior, on the other hand, are connected to the existence and attractiveness of competitive alternatives (Jones et al., 2002). They include items such as service improvement, reputation/image, previous experience with another service provider, and/or a lower price, which in the context of this research, could be a student bursary, grant, lower tuition fees, and supported accommodation. Pull factors are normally related to specific characteristics of the alternative academic institution that would convince the student to switch. The inference of the pull aspect of the PPM theory is that even a satisfied student can be pulled to a competing academic institution with significant expected benefit (Bansal et al., 2005).

Push factors are usually controlled by the service provider (the academic institution) and can be divided into two categories: internal performance issues and issues external to the service provider. The internal performance issues can be measured by customer satisfaction programs. As long as no major issues are discovered, the propensity to switch the educational institution based on push factors should be low (Gustafsson et al., 2005; Rust & Zahorik, 1993). This research places an emphasis on the push factors rather than on the pull factors.

The goal of an institution is to entice students and retain them, thereby creating loyal customers. As mentioned earlier, retention intention is most closely related to the conative level of behavior, i.e. the behavioral intention. According to the theory of planned behavior, behavioral intentions effectively predict the actual behavior of consumers (Ajzen, 1991). Previous research has discovered that behavioral intentions can be predicted reasonably well from attitudes toward the behavior, subjective norms, and perceived behavioral control. These (behavioral) intentions, together with perceptions of behavioral control (the belief that they are capable of performing the act), account for considerable variance when predicting actual behavior (Ajzen, 1991). Thus, it is reasonable to utilize student satisfaction (attitudes) and retention intentions to predict actual behavior. Using this theoretical approach, the student satisfaction and retention model assumes that student satisfaction leads to intentions to stay, which in turn leads to student retention (Keaveney & Young, 1997). According to Oliver (1999), students in higher education institutions are becoming more and more consumer oriented. As a result, the turnover rate is increasing in colleges and students are leaving universities almost as fast as new students are enrolled (Schertzer & Schertzer, 2004). Obviously, this process is costly and inefficient for universities and students alike.

Students withdraw from their studies for a variety of reasons. Past research, however, gravitates toward the conclusion that there is rarely a single reason why students leave. In the majority of cases, the picture is complex; students leave as a result of a combination of interrelated personal and institutional reasons (Long et al., 2006). Based on previous research the personal reasons for student withdrawal are financial issues, poor academic performance, desire to transfer to another institution (a pull factor), family issues, career indecision, and medical reasons. The institutional and performance-related reasons are poor quality of instruction, image of the institution, ineffective study skills, poor support services, difficulty adjusting to college life, poor extracurricular activities, poor advising, poor housing arrangements, and lack of social integration. Based on previous findings (e.g., Zhao

et al., 2005), it is likely that the importance of these variables may vary between international and domestic students. Furthermore, there may be differences between the categories (personal vs. institutional and performance related). In the following section, personal issues related to retention will be discussed followed by a discussion on institutional and performance-related retention issues.

Personal Student Retention Issues

Despite the current study's focus on push factors related to an institution's failure to provide a satisfactory experience for students, it was deemed relevant to also explore how the pull factor of other institutions (Bansal et al., 2005) influenced retention intentions. Thus, this was included as a personal factor in the current research.

HEFCE (Higher Education Funding Council for England)-funded research has found a relationship between financial issues and students withdrawing from higher education. Specifically, students from lower income homes tend to withdraw the most (Thomas, 2002). Furthermore, this research found that students who either had part-time employment or no employment at all were more likely to withdraw. Based on prior research, this research intends, among other things, to explore the relationship between financial issues and student withdrawal.

Poor academic performance has been strongly linked with student retention (Airey & Bennett, 2007; Hagedorn, 2015). For international students, academic performance issues might be exacerbated due to language proficiency, anxiety, loneliness, and cultural adjustment (Li & Gasser, 2005) in addition to academic ability, which might be caused by lack of academic preparedness (Thomas, 2002).

Research has found that 20%–60% of students entering universities are undecided about an academic major or career path. Even students with declared career paths still exhibit some degree of uncertainty or indecisiveness (Gaffner & Hazler, 2002; McWilliams & Beam, 2013). Some students with career indecision change institutions thereby lowering the retention rate. Across the educational spectrum, career indecision and anxiety has been identified as a common variable affecting student retention intentions.

It should also be noted that students may have issues in their personal or family life (e.g., medical reasons), and this may affect their decision to continue their studies. Medical problems can lead students to drop out of school (Pierrakeas et al., 2004). Indeed, during a study of university exit interviews, medical reasons were mentioned as a reason to exit in 7% of cases (McLaughlin et al., 1998). Similar results have been received in other research projects (Thomas et al., 1996).

Institutional and Study-Related Student Retention Issues

Quality of instruction has been named as one of the key components of service quality in higher education (Bryant, 2006; Elliott & Healy, 2001; Mai, 2005). It stems from clear and reasonable requirements, feedback, stimulating lectures (Airey & Bennett, 2007), innovative instructional techniques, and the use of latest instructional technologies (Lau, 2003).

Brand image has been the focus of many previous studies, including nonprofits such as academic institutions (Azoury et al., 2013; Brown & Mazzarol, 2009). Image has been related to students' perception of the quality of programs offered as well as to the value of the degree and qualifications (Hu et al., 2009). This relationship between image and retention has been the subject of growing discussion as researchers attempt to determine how image impacts a university's ability to attract and retain students.

Student satisfaction may also have much to do with a student's ability to function effectively in an academic environment (Hofer, 2001; Ryan & Glenn, 2002). A relationship has been discovered between academic achievement and retention so that high-performing students persist in their studies to a greater degree than their lower achieving peers (DeBerard et al., 2004). Thus, universities that are more selective of students with high grade point averages and standardized test scores can expect greater achievement and retention from their freshmen.

Earlier research suggests that university support services are a key determinant of whether students choose to withdraw from an institution or not. Extant research indicates that a substantial amount of commitment and a variety of student support services, defined as services providing assistance to students in their studies, are needed (Thomas, 2002). These services include academic help, financial support, and career growth and mentoring services. All of these have a potential impact on the well-being of students (Thomas, 2002).

Extracurricular activities are linked to the goals of an institution by building and maintaining a community on campus. They create a bond between students as students can interact with their peers with similar goals and interests. Extracurricular activities assist the students to integrate socially in the academic institution environment. A report by State University (Tenhouse, 2008), stated that "students will be more likely to persist in college if they feel they have had rewarding encounters with a college's social and academic systems." As universities are becoming more culturally and socially diverse, students desire an environment where they can connect with other students, feel comfortable, and accomplish personal goals. Extracurricular activities provide a place for students to come together, discuss ideas and issues, and accomplish common goals. Through these activities, students can feel at ease with one another, learning and development are enhanced, and student retention is positively impacted (Tenhouse, 2008).

A relationship has been discovered between high-quality advising and high rates of student retention; effective advising has been determined to exert an appreciable impact on student retention (Cuseo, 2003; McWilliams & Beam, 2013). It can be further noted that students clearly need support from effective academic advisors for advice on the challenging educational planning process. Similarly, Willingham (1985) reported that a poor sense of direction was a frequently cited reason identified by students as a variable that prevented them from experiencing a more satisfying and successful academic career. Hence, good quality advising may contribute toward higher student retention. Providing further support, Glennen et al. (1996) concluded that the utilization of intrusive advising and the establishment of a student advising center can contribute to improved retention rates.

Previous research has indicated the perceived importance of housing arrangements for students positively impacts retention intentions (Kovacs Burns et al., 2016; McWilliams & Beam, 2013; Thompson et al., 1993). Generally, both international and domestic students search for housing, and most students felt that postsecondary institutions did a poor job in making housing information available to students (Calder et al., 2016). International students are more affected by this, as domestic students are better aware of their environment.

Social integration is defined as the degree of congruence between the individual student and the social system of a university (Tinto, 1975). Tinto further explained that informal peer group associations, extracurricular activities, and interaction with faculty and administrators are mechanisms of social integration. He stated that the academic institution should be responsible in creating and supporting a cultural, academic, and social association when aiming to increase retention. Thus, academic and social integration are both important variables influencing students' intentions to stay. International students are more likely to consider social integration as important as they may experience culture shock and feel reminiscence. Jensen (2011) suggested that international students should be provided with the cultural and social capital necessary to excel in an educational system where there are barriers to persistence and integration.

Retention Intentions: International Versus Domestic Students

The nature of the educational system, and mode of instruction, assessment, and evaluation are important variables that students may find hard to adjust to. International students end up struggling and putting extra effort to scale through their curriculum and may perform poorly during their first semesters of study (Zhao et al., 2005).

Zhao et al. (2005) believed there is a difference between domestic and international students' satisfaction. Some researchers (Albert, 2010) believe that domestic and international students perceive the retention intentions not to be equally important, and that these variables create value and satisfaction to domestic and international students in an unequal way. Clearly, both groups would consider financial reasons, their academic performance in their course of study, career decision, and image of the institution, among other variables, in making the decision to stay, but their importance might be different. Thus, the domestic and international students place different levels of importance in the variables that create value, satisfaction, and intention to remain in a higher education institution (Albert, 2010). For example, difficulty adjusting to college life may be a significantly more important variable for international students due to differences in language and culture (Albert, 2010). The nature of the educational system, mode of instruction, and assessment and evaluation are some of the important variables that international students may have difficulty adjusting to. They end up struggling and putting extra effort to scale through their curriculum and thus may perform poorly in their first semesters of study. Poor housing arrangements, academic advising, and career development plan may also be important variables for international students to consider.

Academic institutions should be more thorough and detailed in creating processes in order to improve student satisfaction and thereby increase their retention intentions (Toutkoushian & Smart, 2001). Personal and academic evaluation of students (domestic and international) should be performed in order to attract students with not just the right qualifications but also the right mindset and skills with an aim to provide value to the students. This is a key issue when reducing the dropout rates and transfers of students.

Hypothesis Development

We attempt to examine the variables critical in influencing both domestic and international students' retention intentions. Based on previous research, we discovered 15 variables that may influence student's retention intentions. For each of the following variables, we hypothesize that there are significant differences between international and domestic students in predicting retention intentions:

1. Financial challenges
2. Poor academic performance
3. Intent to transfer
4. Career indecision
5. Family issues
6. Medical reasons
7. Poor quality instruction
8. Institution image
9. Ineffective study skills
10. Poor school support services
11. Difficulty adjusting to college life
12. Poor extracurricular activities
13. Poor quality of academic advising
14. Poor housing arrangements
15. Lack of social integration

METHOD

Sample

The research adopted the survey method for data collection. It was administered to 395 college students in the school of business of a mid-sized Canadian university in 2018. The sample consisted of 226 males and 167 females. Of the 395 participants, 199 were domestic students and 196 were international students. The majority of students were between 21 and 24 years of age. The distinction was made between domestic and international students by asking if the students were paying domestic or international student fees.

Measurement and Questionnaire Development

We created a survey to examine the level of importance of the variables affecting retention. We distributed the questionnaires personally in a variety of classes to respondents and collected once they were completed. We employed a 5-point Likert scale to measure the dimensions of student satisfaction and retention variables. The survey asked global questions to determine students' overall level of satisfaction, retention intentions, and intentions to recommend the school to others. For example, questions that focused on overall satisfaction used the following scale: 5 = *Very satisfied*, 4 = *Satisfied*, 3 = *Neither satisfied nor dissatisfied*, 2 = *Dissatisfied*, and 1 = *Very dissatisfied*. In addition, a "0 response" (*Don't know/Refused/Not applicable*) was utilized.

Method

We adopted simple random sampling. We further analyzed the data using the one-way analysis of variance (ANOVA) to control the so-called Type 1 error, and therefore the confidence for statistical significance is improved (Hair et al., 2006). We used the test to identify variance among the sample data to discover any significant differences between the means in the sample data between international and domestic students. We also used the Shapiro-Wilk test to check normality of the data, and we found all distributions to be normal.

Data Analysis

Descriptive Statistics

The variables indicated in the literature review may influence students' retention intentions among the business students. Table 1 includes the descriptive statistics of the retention variables. The results indicate that "Financial reasons" are the most important reason affecting students' retention intentions. At the same time, the "Difficulty to adjust to college life" was perceived to be the least important retention intention variable in the sample population.

Table 1: Descriptive Characteristics

Category	Variable	<i>M</i>	<i>SD</i>
Student-related student retention issues	1. Financial reasons	3.45	1.35
	2. Poor academic performance	3.10	1.23
	3. Intent to transfer	3.24	1.12
	4. Career indecision	3.22	1.20
	5. Family issues	3.28	1.27
	6. Medical reasons	3.24	1.34
Institutional and student-related student retention issues	7. Poor quality instruction	3.44	1.32
	8. Institution image	3.20	1.20
	9. Ineffective study skills	3.05	1.21
	10. Poor school support services	3.20	1.25

Category	Variable	<i>M</i>	<i>SD</i>
	11. Difficulty adjusting to college life	2.88	1.24
	12. Poor extracurricular activities	3.01	1.17
	13. Poor quality of academic advising	3.30	1.26
	14. Poor housing arrangements	3.8	1.22
	15. Lack of social integration	3.10	1.12

Hypothesis Testing

The differences between domestic and international students were tested with a one-way ANOVA. The results of these tests can be seen in Table 2 and Figure 1.

Table 2: Hypotheses Testing

Variable	Domestic <i>M</i>	International <i>M</i>	Difference	<i>p</i>	Support
1. Financial reasons	3.49	3.41	+0.08	n.s.	R
2. Poor academic performance	3.05	3.14	-0.09	n.s.	R
3. Intent to transfer	3.30	3.18	+0.12	n.s.	R
4. Career indecision	3.18	3.26	-0.08	n.s.	R
5. Family issues	3.29	3.26	+0.03	n.s.	R
6. Medical reasons	3.16	3.30	-0.14	n.s.	R
7. Poor quality instruction	3.61	3.27	+0.34	**	S
8. Institution image	3.22	3.17	+0.05	n.s.	R
9. Ineffective study skills	2.85	3.24	-0.39	***	S
10. Poor school support services	3.10	3.26	-0.16	n.s.	R
11. Difficulty adjusting to college life	2.65	3.07	-0.42	***	S
12. Poor extracurricular activities	2.78	3.21	-0.43	****	S
13. Poor quality of academic advising	3.32	3.25	+0.07	n.s.	R
14. Poor housing arrangements	2.90	3.22	-0.32	**	S
15. Lack of social integration	2.93	3.24	-0.31	***	S

Note. R = hypothesis was rejected; S = hypothesis was supported. ** significance at $p < .01$; *** significance at $p < .001$; **** significance at $p < .0001$; n.s. = not significant.

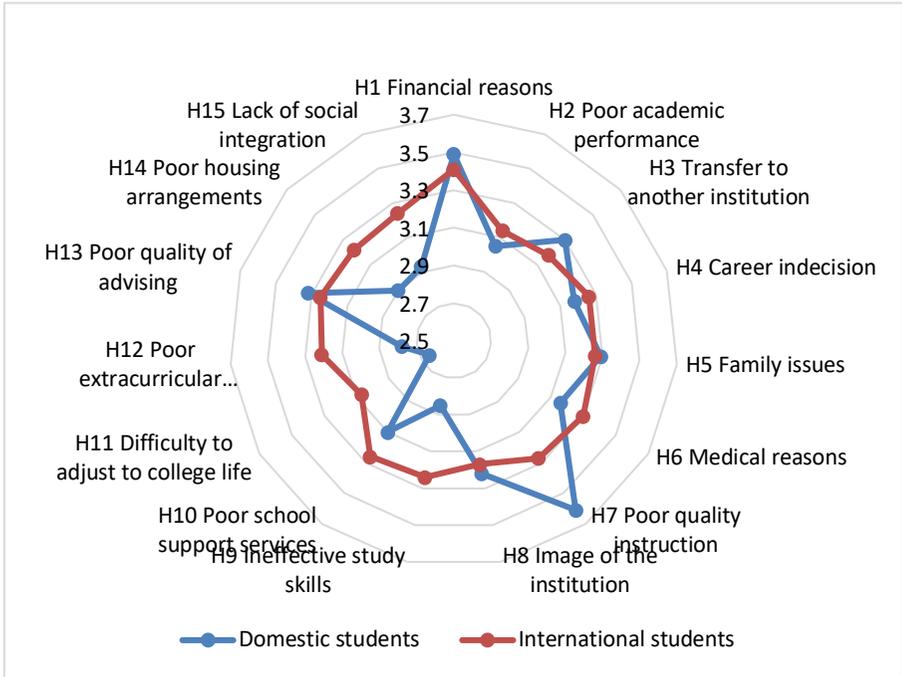


Figure 1: Visual Illustration of the Mean Value Differences Between Domestic and International Students

The criterion to reject the hypothesis was set at a 0.05 level of significance. Our findings show that there are significant differences in six out of 15 variables between international and domestic students as regards to their retention intentions. The variables of social integration, quality of instruction, ineffective study skills, difficulty adjusting to college life, poor extracurricular activities, and poor housing arrangements were significantly different between the two groups. In the remaining variables, there were no significant differences between domestic and international students.

DISCUSSION

Per the PPM theory, variables related to the institution and its competitors both influence retention (Bansal et al., 2005). The current research focused upon the push factors related to the student and institution rather than the pull factors related to institutional competitors. However, pull factors were discussed and results indicate that the desire to transfer was not a significant factor in students' desire to leave an

institution. Thus, an institution needs to focus on student satisfaction and support in order to ensure that students remain at the institution until graduation.

This research identified and tested 15 variables that may affect the retention intentions of students at an academic institution. Significant predictors of student retention were identified and compared across international and domestic students. Important variables related to student retention, along with their implications for university planning, are discussed next.

Student-Related Issues

Financial Reasons

Financial reasons was the most important variable affecting student retention. Since international students pay significantly larger tuition fees, a comparison of the importance of this factor between international domestic students seemed likely to find a difference. The debt that students incur when pursuing their higher education is an important issue (Thomas, 2002). The results of this research support these findings. However, the research did not show a significant difference between international and domestic students, perhaps indicating that international students had ample financial means to afford the significantly higher tuition fees for international students.

Academic Performance

Prior research has revealed that students are likely to discontinue their studies at an institution due to unsatisfactory academic performance (DeBerard et al., 2004; Ryan & Glenn, 2002). However, this research reveals otherwise. The results in Table 2 indicate that academic performance (or lack thereof) as a variable had only a slight impact on students' retention intentions. Furthermore, there were no significant differences between domestic and international students in this respect.

Transfer to Another Institution

The results of this research reveal that the desire to transfer to another academic institution was not a particularly important reason affecting retention intentions. Also, there were no significant differences between international and domestic students in this respect. It is thus feasible that once the selection decision has been made, a transfer to another academic institution is not very likely.

The PPM theory discusses the reasons service customers may want to switch their service provider (Bansal et al., 2005). As mentioned, the push factors are controlled by the academic institution. These research findings indicate that pull factors are not particularly strong. Thus, as long as no major issues are discovered, the propensity to switch educational institutions is likely to be low (Gustafsson et al., 2005; Rust & Zahorik, 1993)—a finding supported by the current research.

Career Indecision

The important decision for students during and after their studies is knowing what career path to take. Upon entering higher education, students may not know what they want to do—or how education will play a role in their career. To increase retention, the institution should have career advice services in place. Research has shown that career indecision can play a major role in the ways students perceive their future career prospects (Jordaan et al., 2009), a finding supported by the current research.

The findings of this research indicate that career indecision is a moderate contributing factor toward retention intentions, indicating that universities need to provide additional support to reduce this indecision. No significant differences were discovered in this regard between international and domestic students.

Family Issues

Family issues can also be a variable causing students to decide to discontinue their studies. Problems related to family issues could be addressed with proactive college counselling and outreach programs (Lapsley et al., 1990). The findings of this research indicate that family issues are a moderate contributing factor toward retention intentions. No significant differences were discovered between international and domestic students.

Medical Reasons

Previous research has indicated that medical reasons are a major factor affecting students' retention intentions. However, the current research findings indicate a moderate impact on retention intentions and no significant differences were discovered between international and domestic students for this variable.

Quality of Instruction

The quality of instruction is a significant factor in a student's decision to discontinue their studies at an academic institution (e.g., Bryant, 2006; Elliott & Healy, 2001; Mai, 2005), and thus delivering quality instruction is an important goal for higher education institutions. The results of this research reveal that students place a relatively high importance on the quality of instruction. Interestingly, the quality of instruction was perceived to be a more important retention variable for the domestic students than for the international students, maybe indicating a higher level of expectations by the domestic students in terms of quality of instruction. Alternatively, a higher power distance in other cultures may influence students' ability to critique professors' performance (Hofstede, 1984). Previous research has recognized the importance of quality of instruction for international students (Airey & Bennett, 2007), however, which indicates that it is still an important factor in international students' success. Research has also explored how this factor is related to student satisfaction between international and domestic students (Mavondo et al., 2004), but

the impact of quality of instructions' effect on retention intentions has received less attention.

Image of the Academic Institution

The image of an institution can be affected by multiple factors such as the quality of its programs, its teaching staff, facilities, locations, past student comments and feedback, competitiveness, marketability, and performance of its students in the workplace. Previous research (Gray & Balmer, 1998) has indicated that the academic institution can be seen as an institution that depends on its image in order to thrive and survive. The results of this research appear to be somewhat inconsistent with the findings of Gray and Balmer (1998). Although the respondents indicated a certain degree of agreement with image being an important variable as far as their retention intentions are concerned, the degree of agreement was relatively small. It is feasible that the image of the academic institution is important during the initial selection of the academic institution, but when the selection has been made, its importance as a retention variable appears to fade away. Furthermore, the results of this research indicated no significant differences between international and domestic students.

Study Skills

Not having proper study skills required to complete their academic program can also be a significant variable affecting retention intentions. Previous research has found that ineffective study skills can lead to learning difficulties (Ellis & Lenz, 1996; Henley et al., 2006; Hoover & Patton, 1995; Strichart et al., 1998; Waldron & McLeskey, 2010). The findings of this research indicate that a lack of proper study skills is a moderate contributing factor toward retention intentions for international students but not so for the domestic students. To confirm this, significant differences were discovered in this regard between international and domestic students. International students felt that effective study skills are more important for their academic ability. International students may need to take advantage of a range of study approaches available for them including study skills workshops, the writing center, mathematics help center, and the library team. Clearly, these services are crucial for retention—particularly for international students.

Support Services

Lack of proper and effective student support services can have an impact on retention intentions of students (Davies, 1999). The existing support services need to be promoted within the institution (Seidman, 2005). The degree to which students interact with academic and social communities at a university directly correlates to their likelihood of finishing college (Tinto, 1975). When students no longer feel connected to their faculty and student peers, they are likely to withdraw from the academic community (Tinto, 1975).

The findings of this research indicate that support services are a somewhat contributing factor toward retention intentions. No significant differences were

discovered in this regard between international and domestic students, indicating that both international and domestic students have an equal desire for academic and nonacademic support services

Adjustment to College Life

Orsuwan (2011) discovered that better social connection has an important link with better academic experience. This study determined that university-sponsored events and facilities for international students to fit in are an important matter, as students exposed to them later exhibit higher satisfaction, higher ambitions, and greater self-confidence (Orsuwan, 2011). Contrary to this, the findings of the current study indicate that adjustment to college life is not a contributing factor toward retention intentions, especially in the case of domestic students. There were significant differences, however, between international and domestic students such that adjustment to college life was a more important issue for the international students.

Students new to an institution can experience marginality arising from feelings of isolation on campus (Kodama, 2002). This experience of marginality can impact student retention rates. The more students feel marginalized, the more likely they are to leave an institution (Schlossberg, 1989).

Extracurricular Activities

Extracurricular activities appear to be a somewhat important variable for international students when they consider their retention intentions. This was, however, not the case for domestic students. Again, there were significant differences between international and domestic students.

The model developed by Tinto (1975) emphasized the balance between class performance and intellectual development with extracurricular activities. Students will be more likely to persist in college if they feel they have had rewarding encounters with a college's social and academic systems. The results of this research are consistent with this in the case of international students confirming the need for exploring new interests and developing new peer relations while testing and developing a broad range of physical, interpersonal, leadership, and intellectual skills. All of these things strengthen international students' bonding with the higher education institution. Research concerning extracurricular activities (Zill et al., 1995) has found that students who did not participate in extracurricular activities are more likely to drop out or change the academic institution, especially in the case of international students (Toyokawa & Toyokawa, 2002; Zhang & Brunton, 2007).

Advising

Extant research suggests that the quality of advising is a contributing factor to retention (Cuseo, 2003; Willingham, 1985). The degree of student involvement in academic advising either with faculty or advising personnel can be vital to student persistence (Astin, 1984; Wang & Wharton, 2010). The findings of this research

indicate that academic advising is a somewhat contributing factor toward retention intentions. No significant differences were discovered between international and domestic students.

Housing

Another factor that potentially impacts retention intentions is the issue of housing. Students may have issues in arranging accommodation, especially in the case of international students, as the results of this research indicate. A student living in unsuitable off-campus accommodation would have a greater chance of not wanting to continue (Grayson, 1998). Thompson et al. (1993) determined that first-year students with adequate campus accommodation indicate higher retention intention, better academic performance and continuity, as well as student satisfaction (Pike & Kuh, 2005).

The results of previous research align with results of this research. Housing was considered to be a somewhat important variable affecting retention intentions for international students. Furthermore, significant differences were discovered between international and domestic students.

Social Integration

Social integration has been found to be an important variable that influences student retention (Jensen, 2011). This research found that retention depends on the students' ability to integrate (socially and culturally) and assimilate into the academic institution (Jensen, 2011). Jensen introduced the concept of dual socialization, meaning that institutions have a share in the successful cultural and social integration of students within the academic institution. He further indicated that "the assumption that minority students are solely responsible in assimilating and incorporating themselves to the culture of the college excuses institutions from dealing with their own barriers to retention." On the basis of this study's results, we can conclude that social integration is, indeed, a significantly more important variable for international students than for domestic students.

Kuh and Love (2004) emphasized the importance of social integration by indicating that students who made cultural connections through social groups that reflect their culture of origin are more likely to persist in higher education. While such groups may form organically and informally, universities may also foster such opportunities for interaction and integration. Due to culture shock and other barriers, international students may find it hard to find accommodations, adjust culturally, and assimilate to immigration policies and with their peers (Smith & Demjanenko, 2011), which means that the institution must help them along in order to ensure student retention.

CONCLUSION

The results of this research indicate that there were significant differences between international and domestic students in six out of 15 variables under investigation.

These six variables were social integration, quality of instruction, study skills, adjustment to college life, extracurricular activities, and housing arrangements. For international students, social integration, study skills, adjustment to college life, extracurricular activities, and housing arrangements were significantly more important. For domestic students, however, quality of instruction was significantly more important. Furthermore, the most important predictor of retention intentions for both groups was financial support.

When aiming to reduce attrition among international students, an emphasis should be placed on providing a variety of services to reduce culture shock and increase assimilation. Counseling, extracurricular activities, housing services, study workshops, and other initiatives to aid in learning how to cope with the new learning experience are all important for encouraging international students to remain in the institution.

Domestic students, however, focus more upon the quality of instruction. These students know what they want and expect a high caliber of instruction in all of their classes. Thus, institutions need to focus on hiring high quality instructors in order to ensure that their domestic students do not leave the institution.

Interestingly, the variables that showed a difference between international domestic students were all related to academic performance and institutional factors. Thus, both international and domestic students are equally likely to drop out due to factors such as medical or financial issues. However, international students have a unique set of needs when determining whether or not they will continue at an academic institution. These findings indicate that institutions have a fair amount of control over whether or not their students continue until graduation—they simply need to ensure that both groups of students are getting their needs met.

Practical Implications

An academic institution can take action to improve international students' retention intentions by providing social integration guidance (activities like community service, social nights, dances, etc.), engaging instruction (deep learning instead of rote memorization, flipped classrooms, simulations, etc.), help in academic skills development (study skills, student resources manual, time management, and peer coaching), offering guidance and counselling, understanding ethnic and multicultural problems, providing exciting extracurricular activities, and providing significant and meaningful help in organizing appropriate housing for international students. Conducting exit interviews is also important in order to get vital data for the purpose of management of retention intentions.

Students need to use their inherent study skills to complete their assignments, tests, and exams. In many cases, instructors, however, allocate minimal time for giving detailed instructions toward these abilities (Zimmerman, 1998) potentially thinking that students may already have these skills.

Limitations and Future Research

This research begins to explore the differences between international and domestic students in terms of retention. However, the scope of the study was somewhat limited. The survey only considered students in an on-campus environment. The issues that students face in an online environment are possibly very different. Furthermore, this research did not consider the possibility that international students in different majors may face a different set of issues. Also, the study only measured intentions—not actual behavior. Intentions have been related to actual behavior, but this is not a perfect relationship (Ajzen, 1991). In spite of the fact that behavioral intentions and actual behavior are related, it is feasible that the variables affecting their actual retention behavior might differ in importance and significance.

Future research may also consider using qualitative survey data to complement the quantitative approach used in this research. This approach would add significantly to the richness of the data in this study by discovering why these variables are important to the two sets of students and how these services can be improved. In addition, a wider variety of universities in the Canadian and international context would provide additional validity and reliability for the findings in this research.

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